

CLAIMS

- 1 1. A method of providing anonymous digital cash, said method comprising:
2 providing an entity with a secure co-processor;
3 a user establishing a secure channel to a program running on said coprocessor;
4 and
5 the user sending a coin to be digitally signed to the coprocessor using any
6 secure digital signature algorithm.
- 1 2. A method according to Claim 1, further comprising the steps of:
2 the processor providing a signature to authenticate;
3 the user using said coin for payment to a merchant; and
4 the merchant returning the signed coin to the entity for credit to an account of
5 the merchant.
- 1 3. A method of creating and managing electronic cash, comprising the steps:
2
3 a customer communicating to a secure cryptography generator an encryption scheme
4 and a cash amount;
5 establishing a unit representing the cash amount;
6 signing the unit;
7 using the secure cryptography generator to encrypt the signed unit using the
8 encryption scheme;
9 storing in a database the encrypted signed unit and a value for the unit;
10 transmitting the encrypted signed unit to the customer;
11 the customer decrypting the encrypted signed unit to obtain the signed unit; and
12 using the signed unit as a payment.

1 4. A method according to Claim 3, further including the steps of:
2 establishing an expiration date for the unit; and
3 storing the expiration date in the database.

1 5 A method according to Claim 3, wherein the signing step includes the step of
2 using the secure cryptography generator to sign the unit.

1 6. A method according to Claim 3, wherein the signing step includes the step of
2 signing the unit with a non-homomorphic signature.

1 7. A system for creating and managing electronic cash, comprising the steps:
2
3 a secure cryptography generator, including means for receiving an encryption scheme
4 and a cash amount from a customer;
5 means for establishing a unit representing the cash amount;
6 means for signing the unit;
7 wherein the secure cryptography generator encrypt the signed unit using the
8 encryption scheme;
9 a database for storing the encrypted signed unit and a value for the unit;
10 means for transmitting the encrypted signed unit to the customer; and
11 means for the customer to decrypt the encrypted signed unit to obtain the signed unit,
12 wherein the customer is able to use the signed unit as a payment.

1 8. A system according to Claim 7, further including means for establishing an
2 expiration date for the unit, and wherein
3 the expiration date is stored in the database.

1 9. A system according to Claim 7, wherein the secure cryptography generator
2 includes means for signing the unit.

1 10. A system according to Claim 7, wherein the means for signing includes means
2 for signing the unit with a non-homomorphic signature.

1 11. A program storage device readable by machine, tangibly embodying a program
2 of instructions executable by the machine to perform method steps for creating and
3 managing electronic cash, said method steps comprising:
4
5 using a secure cryptography generator to receive from a customer an encryption
6 scheme and a cash amount;
7 establishing a unit representing the cash amount;
8 signing the unit;
9 using the secure cryptography generator to encrypt the signed unit using the
10 encryption scheme;
11 storing in a database the encrypted signed unit and a value for the unit;
12 transmitting the encrypted signed unit to the customer;
13 decrypting the encrypted signed unit to obtain the signed unit; and
14 using the signed unit as a payment.

1 12. A program storage device according to Claim 11, wherein said method steps
2 further include the steps of:
3 establishing an expiration date for the unit; and
4 storing the expiration date in the database.

1 13. A program storage device according to Claim 11, wherein the signing step
2 includes the step of using the secure cryptography generator to sign the unit.

1 14. A program storage device according to Claim 13, wherein the signing step
2 includes the step of signing the unit with a non-homomorphic signature.

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